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plurality of the combustion chambers, the combustion chambers are disposed one after another from bow to stern generally along the center plane, wherein the engine comprises a plurality of first passages and a plurality of second passages, and wherein the air induction system introduces air to the respective combustion chambers through either the plurality of the first or second passages, the plenum chamber member defines a plurality of the air inlet ports disposed one after another from bow to stern generally along the center plane.

COMMENTS

In response to the Office Action mailed August 2, 2002, Applicants respectfully request the Examiner to reconsider the above-captioned application in view of the foregoing amendments and the following comments. Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached pages are captioned **VERSION WITH MARKINGS TO SHOW CHANGE MADE**. The changes are indicated by underlining insertions (e.g., added text) and bracketing and bolding deletions (e.g., **[deleted text]**).

The Applied Combination of Nakase et al./Isaka Does Not Render Obvious The Engine Recited By Claims 20 and 21

Claims 20 and 21 have been rejected under 35 U.S.C. § 103(a) as unpatentable over Nakase et al. in view of Isaka. Applicants respectfully submit that Claims 20 and 21 as amended overcome the rejection because the prior art references do not teach or suggest the recited layout of the engine in a watercraft.

The Applied Prior Art References

Nakase et al. discloses a four-cycle engine 23 that has an engine axis slanting from the center plane L of the watercraft 11. The twin overhead camshafts 46 are disposed on one side of the hull 12 as divided by the center plane L. The crankshaft 24 rotates about the axis that lies on or close to the center plane L such that axes of connecting rod journals of the crankshaft 24 cross over the center plane L as the crankshaft rotates. The pistons and connecting rods 44 thus substantially lie on the same side of the hull 12 as the camshafts 46. Accordingly, many heavy components, including the camshafts 46, the pistons, the connecting rods 44 and the crankshaft 24, substantially exist on the same side of the hull 12.

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As the Examiner pointed out, Isaka discloses a five valve head, in which there are provided three intake valves and passages and two exhaust valves and passages.

Claim 20

The combination of Nakase et al. with Isaka does not teach or suggest, among other limitations recited by Claim 20, disposing an engine such that an axis of the connecting rod journal lies on one side of the center plane as the crankshaft rotates, and both the first and second valve devices are disposed on the other side of the center plane. Because of the arrangement, at least some of the heavy components including the crankshaft, the big end of the connecting rod and at least a portion of the piston lie on another side of the center plane opposing to the side on which the first and second valve devices exist. The weight of the engine thus is better balanced within the hull.

Thus, the applied prior art references do not teach or suggest all the limitations of Claim 20 as amended. Reconsideration of Claim 20 is respectfully requested.

Claim 21

The combination of Nakase et al. with Isaka does not teach or suggest, among other limitations recited by Claim 21, disposing an engine such that an axis of the connecting rod journal lies on one side of the center plane as the crankshaft rotates, and both the intake and exhaust camshafts rotate about axes that lie on the other side of the center plane. Because of the arrangement, at least some of the heavy components including the crankshaft, the big end of the connecting rod and at least a portion of the piston lie on another side of the center plane opposing to the side on which the first and second valve devices exist. Thus, the applied prior art references do not teach or suggest all the limitations of Claim 21 as amended. Reconsideration of Claim 21 also is respectfully requested.

New Claims 22-25 Have been Added

New Claims 22-25 have been added to provide protection of a differing scope for certain aspects of the present invention. These claims depend from Claim 1 that has been allowed and do not add any new matters. Consideration of Claims 22-25 is respectfully requested.

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CONCLUSION

For the foregoing reasons, it is respectfully submitted that the rejections set forth in the outstanding Office Action are inapplicable to the present claims. Accordingly, early issuance of a Notice of Allowance is most earnestly solicited.

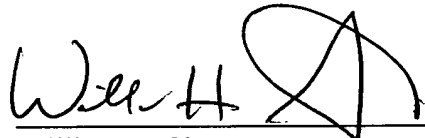
The undersigned has made a good faith effort to respond to all of the rejections raised in the Office Action so as to place the claims in condition for immediate allowance. Nevertheless, if any undeveloped issues remain or if any issues require clarification, the Examiner is respectfully requested to call Applicant's attorney, Bill Shreve at (949) 721-2895 (direct line) in order to resolve such issue promptly.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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VERSION WITH MARKINGS SHOWING CHANGES MADE

IN THE SPECIFICATION

The paragraph beginning at line 25 of page 7 has been amended as follows:

As seen in FIGURES 3 and 5, a pair of air inlet ports 122, each has a duct shape, is defined at a bottom portion of the lower chamber member 120b positioned right above the cylinder head member 116. The inlet ports 122 project into the plenum chamber 118. An air cleaner element 124 is disposed within the plenum chamber so as to surround the air inlet ports **[120] 122**. The air cleaner element 124 divides the plenum chamber 118 into two spaces which are an inner space and an outer space of the element 124. The air inlet ports 122 are positioned in the inner space. The air in the internal cavity 40 of the hull 34 is thus introduced into the plenum chamber 118 and is sure to pass through the cleaner element 124 before moving downstream of the plenum chamber 118.

IN THE CLAIMS:

Claims 20 and 21 have been amended as follows:

20. **(Amended)** A watercraft comprising an internal combustion engine and a hull defining a center plane extending generally vertically from bow to stern, the internal combustion engine comprising a cylinder body defining at least one cylinder bore, a piston reciprocating within the cylinder bore, a connecting rod coupled to the piston, a crankshaft including at least one connecting rod journal having an axis about which the connecting rod moves **[rotatably connected with the piston]**, a cylinder head member closing an end of the cylinder bore and defining a combustion chamber with the cylinder bore and the piston, a first passage comprising at least two paths communicating with the combustion chamber, a first valve device comprising at least two valves arranged to selectively connect and disconnect the paths of the first passage with the combustion chamber, a second passage comprising at least one path communicating with the combustion chamber, the second passage having a fewer in number of paths than that of the first passage, and a second valve device comprising at least one valve arranged to selectively connect and disconnect the at least one path of the second passage with the combustion chamber, the first valve device being disposed closer to the center plane than the second valve device, the engine being disposed within the hull such that the axis of the connecting rod journal lies to one side of the center plane as the crankshaft **[generally rotating]** rotates **[about an axis that lies on**

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one side of the hull as divided by the center plane,] and both the first and second valve devices [being] are disposed on the other side of the [hull] center plane.

21. (Amended) A watercraft comprising an internal combustion engine and a hull defining a center plane extending generally vertically from bow to stern, the internal combustion engine comprising a cylinder body mounted within the hull, the cylinder body defining at least one cylinder bore, a piston reciprocating within the cylinder bore, a connecting rod coupled to the piston, a crankshaft including at least one connecting rod journal having an axis about which the connecting rod moves [pivotally connected with the piston], a cylinder head member closing an end of the cylinder bore and defining a combustion chamber with the cylinder bore and the piston, a plurality of air intake passages introducing air to the combustion chamber, and at least one exhaust passage receiving exhaust gases from the combustion chamber, the number of air intake passages being greater than the number of exhaust passages, air intake valves arranged to selectively open and close the air intake passages, at least one exhaust valve arranged to open and close the at least one exhaust passage, an intake camshaft arranged to actuate the intake valves, an exhaust camshaft arranged to actuate the exhaust valve, the intake camshaft lying closer to the center plane than the exhaust camshaft, the engine being disposed within the hull such that the axis of the connecting rod journal lies to one side of the center plane as the crankshaft [rotating] rotates [about an axis that lies to one side of the center plane,] and both the intake and exhaust camshafts rotate about axes that lie on the other side of the [central] center plane.